Amendments to the Drawings

   The attached replacement drawing includes changes to Figure 5.

This sheet which includes Figure 5 replaces the original sheet

including Figure 5.   In Figure 5, the designation "56" for

"Storage" has been changed to "52".

Attachment: Replacement Sheet

Annotated Sheet Showing Changes

REMARKS

Claims 1-21 are pending in the present application with claims 1, 5, 10, 13 and 19 in independent form. A listing of claims 1-21 and the present status of each claim begins on page 4 of this reply. Claims 1, 5 and 10 have been amended to further clarify the features of the present application. Claim 13 has been amended to correct a typographical error. Claims 2 and 11 have been cancelled without prejudice or disclaimer. New claim 21 has been added. The first paragraph under the Detailed Description of the Invention and the paragraph beginning at line 17 of page 21 have been amended to correct the minor errors noted by the Office Action. The changes made to the specification by this reply are indicated beginning on page 2 of this reply.

The Drawings section of the Office Action objected to the drawings under 37 C.F.R. 1.84(p)(4). More specifically, the Office Action states that the reference character "56" has been used to designate both "Transmitter" and "Storage". This section of the Office Action also objected to the drawings under 37 C.F.R. 1.84(P)(5) because they do not include reference character "52", mentioned on line 6 on page 21 of the present application. A replacement drawing is submitted herewith including a change to Figure 5 in which the designation "56" for "Storage" has been

changed to the designation "52". Both the replacement drawing and an annotated version illustrating this change are attached hereto.

In view of the remarks above, the submission of replacement drawing and the annotated version thereof, Applicant respectfully requests that the objection to the drawings be reconsidered and withdrawn.

The Specification section of the Office Action objected to the disclosure. More specifically, the Office Action contends that there is a minor error in the 5th line of the first paragraph under the Detailed Description of the Invention in that "recipient" should be reference with the numeral 2, instead of 3. Applicant has hereby amended this paragraph to correct the error pointed out in the Office Action in the Amendments to the Specification described above beginning at page 2 of this Amendment.

The Office Action further contends that "processor" is designated with the incorrect reference numeral in the second to last paragraph on page 21 and that the correct reference numeral is "54". Applicant has hereby amended this paragraph to correct this error in the Amendments to the Specification described above beginning at page 2 of this Amendment.

In view of the remarks above and the amendments to the specification made herein, Applicant respectfully requests that

the objection to the specification be reconsidered and withdrawn.

The Claim Objections section of the Office Action objected to claim 13. More specifically, the Office Action contends that there is a minor error in the third line of claim 13 in that the word "an" in between "generating" and "a" should be removed.

Applicant has hereby amended claim 13 as indicated in the Listing of Claims beginning at page 4 of this Amendment. Claim 13 has been amended to eliminate the word "an" as suggested in the Office Action.

In view of the remarks above and the amendments to the claims made herein, Applicant respectfully requests that the objection to the specification be reconsidered and withdrawn.

Applicant has added new claim 21 to further describe an embodiment of the present invention. Support for new claim 21 can be found at least at page 15, lines 1-2 of the present application.

Subsections 1-6 of the §102 Claim Rejections section of the Office Action rejected claims 1, 2, 5 and 10-12 under 35 U.S.C. §102(e) as allegedly anticipated by U.S. Patent Publication No. 2001/0042200 to Lamberton et al.

The Office Action contends that Lamberton et al. teaches a method of gathering information about a connection between a sender and a recipient network including the steps of generating

an information query by the sender, sending the information

query to the recipient (making reference to element 730 of

Lamberton et al.), receiving the information query at a border

device (making reference to element 720 of Lamberton et al.) of

the recipient, processing the information query at the border

device according to a plurality of predetermined rules, wherein

said predetermined rules provide for one of: providing selected

information requested by the information query in a response to

the information query to be sent to the sender; discarding the

information query; and passing the information query through the

border device to the recipient for response. The Office Action

cited page 2, paragraph 8 and Figure 7 of Lamberton et al. as

allegedly supporting this position.

    With regard to claims 2 and 11, the Office Action contends

that Lamberton et al. teaches that the selected information

provided to the sender includes identification information

(making reference to element 310 of Lamberton et al.) that is

different than that of the border device. The Office Action

cites page 2, paragraph 8 of Lamberton et al. as allegedly

supporting this position. Applicant respectfully disagrees.

    Applicant respectfully submits that the Lamberton et al.

fails to teach or suggest that the selected information includes

"identification information that differs from identification

information of the border device" as recited in amended claims 1,

5, and 10 of the present application.

Lamberton et al. discloses methods and a system for

defeating, in a server of an IP network, a SYN flooding attack.

The server runs TCP allowing the establishment of TCP connections

with client units. Lamberton et al. assumes that, upon having

activated TCP in the server, the server starts listening for the

receiving of SYN messages from client units. Whenever receiving a

SYN message the server computes an ISR ("Initial Sequence number

Receiver side") and responds to the client unit with a SYN-ACK

message including the computed ISR. The server is also listening

for the receiving of ACK messages sent from client units.

Whenever receiving an ACK message it checks the ISR. If checking

fails, the ACK message is dropped. If checking is passed, the ISR

is accepted as being an authentic computed ISR and decoded

accordingly. Then, resources are allocated, according to the

content of the computed ISR, and a TCP connection is actually

established. In all cases, the listening state, from which

processing of all received messages starts, is returned to. See

Lamberton et al., page 2, paragraph 8. Element 310 of Figure 3

refers to a 32-bit sequence number field of a TCP header. The

ISR is inserted into the field 310 by the server in the SYN-ACK

response from the server to the originator of the SYN request.

See Lamberton et al., page 3, paragraph 27.

Lamberton et al., however, does not show or suggest "selected information including identification information that differs from identification information of the border device" as recited in amended claim 1, for example. More specifically, Lamberton et al. discloses that the ISR is a number computed by the server and is used by the server for validating a subsequent ACK message. The ISR is not identification information as described in the subject specification and recited in the amended claims, much less, identification information that differs from the device's identification information as recited in amended claims 1 and 5.

It is also noted that Lamberton et al. is specifically directed to TCP systems and the three-way handshaking procedure utilized to establish TCP connections. The present application, on the contrary, is applicable to all IP systems and provides protection from a variety of potentially malicious messages.

Accordingly, it is respectfully submitted that at least claims 1 and 5, and the claims depending therefrom, are patentable over the cited art for at least the reasons mentioned above.

With regard to claims 10 and 12, the Office Action contends that Lamberton et al. teaches a border device (making reference

to element 720 of Lamberton et al.) positioned between a sender

and one or more recipients for use in gathering information

regarding a connection between the sender and the recipient in

the network, the border device including a receiver for receiving

an information query from the sender addressed to the recipient,

a processor for processing the information query on behalf of the

recipient to generate a response to said information query

including selected information and a transmitter for sending the

response including the selected information to the sender.   The

Office Action cites Page 2, paragraph 8 and Figure 7 of Lamberton

et al. as support for this position.   Applicant respectfully

disagrees.

Element 720 of Figure 7 is a "shield" that could be a part

of a load balancing function.   Only genuine requests are passed

from the shield to individual servers of the cluster of servers

730 through a hand-off mechanism [740] that hands off a TCP

connection started in a first device.   See Lamberton et al., page

5, paragraph 37.

As noted above with regard to claims 1 and 5, Lamberton et

al. fails to show or suggest "selected information including

identification information that differs from identification

information of the border device" as substantially recited in

amended claim 10 of the present application.

Accordingly, it is respectfully submitted that claim 10, and

the claims depending therefrom, are patentable over the cited art

for at least the reasons discussed above.

Subsections 1-6 of the §103 Claim Rejections section of the

Office Action rejected claims 3, 4, 8, 9, 19 and 20 under 35

U.S.C. §103(a) as allegedly unpatentable over Lamberton et al. in

view of U.S. Published Patent Publication No. 2002/0002686 to

Vange et al.

Vange et al., as understood by Applicant, relates to a

system for handling denial of service attacks on behalf of a

shared network resource. A request processing resource deployed

within the network has an interface configured to receive

requests on behalf of the shared network resource. A rate

control component coupled to the request processing component

includes programs and data structures operable to selectively

forward received requests to the shared network resource at a

rate selected to prevent crashing. See Vange et al., page 1,

paragraph 11.

Claims 1 and 5 are believed to be patentable over Lamberton

et al. for at least the reasons described above. It is

respectfully submitted that claims 1 and 5 are patentable over

Lamberton et al. in view of Vange et al. at least because like

Lamberton et al., Vange et al. fails to show or suggest providing

the sender "selected information including identification
information that differs from identification information of the
border device."

Accordingly, it is respectfully submitted that independent
claims 1 and 5, and the claims depending therefrom, including
dependent claims 3-4 and 8-9, respectively, are patentable over
the cited art for at least the reasons discussed above.

With regard to claim 19, the Office Action contends that
Lamberton et al. discloses a method of gathering information
about a connection between a sender and a recipient in a network
including the steps of generating an information query by the
sender, sending the information query to the recipient(making
reference to element 730 of Lamberton et al.), receiving the
information query at a border device (making reference to element
720 of Lamberton et al.) according to a plurality of
predetermined rules, wherein the predetermined rules provide for
one of: providing selected information requested by the
information query in a response to be sent to the sender,
discarding the information query; and passing the information
query through the border device to the recipient for response.
The Office Action cites page 2, paragraph 8 and Figure 7 of
Lamberton et al. as allegedly supporting this position.

The Office Action concedes that Lamberton et al. fails to

disclose that the sender has a cache for storing at least a

portion of the selected information, but contends that caches

were well known in the art and that Vange et al. in a similar

field of endeavor teaches a method for overcoming denial of

service attacks that includes using a cache to store IP address

mapping information at client 117, citing Page 5, paragraph 54 of

Vange et al. The Office Action further contends that it would

have been obvious to one of ordinary skill in the art to modify

the teachings of Lamberton et al. to show the sender having a

cache for storing at least a portion of the selected information

sent from the border device to the sender, at the sender.

Applicant respectfully disagrees.

Applicant respectfully submits that Lamberton et al. and

Vange et al. fail to show or suggest storing at least the

selected information of the response for a predetermined period

of time when the destination address of the information query is

one of a plurality of predetermined addresses stored at the

sender, such that when a subsequent information query includes a

destination address corresponding to any of the plurality of

predetermined addresses, the stored selected information of the

response is used without sending the subsequent information query

to the recipient, wherein said predetermined period of time is

different from a period of time for which the selected

information of the response is stored when the destination

address of the information query is an address other than one of

the plurality of predetermined addresses as is substantially

recited in claim 19 of the present application.

Vange et al. discloses that appliance 117 may cache IP

address mapping for future use. See page 5, paragraph 54 of

Vange et al. Further, it is noted that the IP address mapping of

Vange et al. is specifically related to the association of a

domain name to an IP address, typically using a DNS server. See

Vange et al., page 5, paragraphs 53-54. Vange et al., however,

fails to show or suggest that the predetermined period of time

during which the selected information is stored is different from

a period of time for which the selected information of the

response is stored when the destination address of the

information query is an address other than one of the plurality

of predetermined addresses as substantially recited in claim 19

of the present application.

Accordingly, it is respectfully submitted that claim 19, and

the claims depending therefrom, including claim 20, are

patentable over the cited art for at least the reasons discussed

above.

Subsections 7-10 of the §103 Claim Rejections section of the

Office Action rejected claims 6 and 13-15 under 35 U.S.C. §103(a)

as allegedly unpatentable over Lamberton et al. in view of

Applicant's admitted prior art.

Regarding claim 13, the Office Action contends that

Lamberton et al. discloses a method of gathering information

regarding a connection between a sender and a recipient in a

network including the steps of generating a packet by the sender,

sending the packet to the recipient (making reference to element

730 of Lamberton et al.), receiving the performance measurement

packet at a border device (making reference to element 720 of

Lamberton et al.) of the recipient and processing the packet at

the border device according to a plurality of predetermined

rules, wherein the predetermined rules provide for one of:

generating a response packet to be sent to the sender; discarding

the packet and passing the packet through the border device to

the recipient for response. The Office Action further cites page

2, paragraph 8 of Lamberton et al. as allegedly supporting this

position.

The Office Action concedes that Lamberton et al. fails to

disclose that the packet is a performance metric packet, however,

contends that the Applicant admits that performance metric

packets were well known at the time of the invention and that it

would have been obvious to one of ordinary skill in the art to

modify the teachings of Lamberton et al. to show the packet being

a performance metric packet.   Applicant respectfully disagrees.

The specification of the present application does disclose the existence of performance metric packets in the Description of Related Art, however, there is no suggestion in the cited art to combine the performance metric packets with Lamberton et al.   In fact, Lamberton et al. teaches away from such a combination. Lamberton et al. discloses that upon activation of a TCP server, the server starts listening for a SYN message from client units. SYN messages are not performance metric packets.   See Lamberton et al., page 2, paragraph 8.   In fact, the object of Lamberton et al. is to provide a method and system to defeat attacks against Web servers and other devices which are based on the creation of TCP connections.   See Lamberton et al., page 1, paragraph 5. Thus, it would not have been obvious to one of ordinary skill in the art to combine the performance metric packets described in the present application with the method and system of Lamberton et al. that specifically listens for SYN messages for initiating TCP communications.

Accordingly, it is respectfully submitted that claim 13 and the claims depending therefrom, including claims 14 and 15 are patentable over the cited art for at least the reasons cited above.

As noted above, it is believed that claim 5 is patentable

over Lamberton et al. at least because Lamberton et al. fails to

disclose providing selected information including identification

information that is different than that of the border device as

described in amended claim 5.   It is respectfully submitted that

claim 5 is patentable over Lamberton et al. in view of

Applicant's admitted prior art for at least similar reasons since

Applicant's admitted prior art also fails to disclose "providing

selected information including identification information that is

different than that of the border device."

Accordingly, it is respectfully submitted that like amended

claim 5, the claims depending therefrom, including claim 6, are

patentable over the cited art for at least the reasons discussed

above.

Subsections 11 and 12 of the §103 Claim Rejections section

of the Office Action rejected claim 7 under 35 U.S.C. §103(a) as

allegedly unpatentable over Lamberton et al. in view of U.S.

Patent No. 5,781,550 to Templin et al.

The Office Action concedes that Lamberton et al. fails to

disclose that the information query includes predetermined

identification information but contends that Templin et al.

teaches passing an information query through the border unit when

the information query includes predetermined information and that

it would have been obvious to one of ordinary skill in the art to
modify Lamberton et al. to show a rule providing for passing the
information query through the border unit to the recipient for
response when the information query includes predetermined
identification information. Applicant respectfully disagrees.

As noted above, claim 5 is believed to be patentable over
Lamberton et al. at least because Lamberton et al. fails to
disclose providing selected information including identification
information that is different than that of the border device as
described in amended claim 5. It is respectfully submitted that
claim 5 is patentable over Lamberton et al. in view of Templin et
al. for at least similar reasons since Templin et al. also fails
to disclose "providing selected information including
identification information that is different than that of the
border device."

Accordingly, it is respectfully submitted that like amended
claim 5, the claims depending therefrom, including claim 7, are
patentable over the cited art for at least the reasons discussed
above.

Subsections 13 and 14 of the §103 Claim Rejections section
of the Office Action rejected claim 16 under 35 U.S.C. §103(a) as
allegedly unpatentable over Lamberton et al. in view of
Applicant's admitted prior art and Templin et al. Applicant

respectfully disagrees.

As noted above, claim 13 is believed to be patentable over Lamberton et al. in view of Applicant's admitted prior art at least because there is no suggestion to combine the performance metric packets discussed in Applicant's admitted prior art with the method and system of Lamberton et al. and because Lamberton et al. teaches away from such a combination. It is respectfully submitted that claim 13 is patentable over Lamberton et al. in view of Applicant's admitted prior art and further in view of Templin et al. at least because none of Lamberton et al., Applicant's admitted prior art, and Templin et al. provide any suggestion to combine the performance metric packets of Applicant's admitted prior art with the method and system of Lamberton et al. and because Lamberton et al. teaches away from such a combination.

Accordingly, it is respectfully submitted that like claim 13, the claims depending therefrom, including claim 16, are patentable over the cited art for at least the reasons described above.

Subsections 15-17 of the §103 Claim Rejections section of the Office Action rejected claims 17-18 under 35 U.S.C. §103(a) as allegedly unpatentable over Lamberton et al. in view of Applicant's admitted prior and Vange et al. Applicant

respectfully disagrees.

As noted above, claim 13 is believed to be patentable over Lamberton et al. in view of Applicant's admitted prior art at least because there is no suggestion to combine the performance metric packets discussed in Applicant's admitted prior art with the method and system of Lamberton et al. and because Lamberton et al. teaches away from such a combination. It is respectfully submitted that claim 13 is patentable over Lamberton et al. in view of Applicant's admitted prior art and further in view of Vange et al. at least because none of Lamberton et al., Applicant's admitted prior art, and Vange et al. provide any suggestion to combine the performance metric packets of Applicant's admitted prior art with the method and system of Lamberton et al. or Vange et al. and because Lamberton et al. teaches away from such a combination.

Accordingly, it is respectfully submitted that like claim 13, the claims depending therefrom, including claims 17-18, are patentable over the cited art for at least the reasons described above.

In light of the remarks and amendments made herein, it is respectfully submitted that claims 1-21 of the above-identified application are patentable over the cited art for at least the reasons described above.

In view of the amendments to the specification, claims and drawings and the remarks above, Applicant respectfully requests that the objections and rejections in the Office Action be reconsidered and withdrawn. Applicant respectfully submits that this application is in condition for allowance and earnestly solicits a Notice Of Allowance.

If a telephone interview would be of assistance in advancing prosecution of the subject application, Applicant's undersigned attorney invites the Examiner to telephone him at the number provided below.
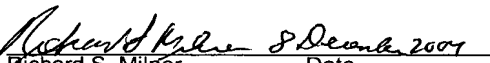
No fee is deemed necessary in connection with the filing of this Amendment. However, if any additional fee is required, authorization is hereby given to charge the amount of such fee to Deposit Account No. 03-3125.

Respectfully submitted,

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I hereby certify that this paper is being deposited this date with the U.S. Postal Service as first class mail addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Richard S. Milner   Date
Reg. No. 33,970

FIGURE 5